



# Australian Bureau of Statistics

## 1220.0.55.001 - Occupation Standard, 2012, Version 1.0

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## Summary

### About this Release

Data on occupations are collected in a wide variety of social and labour statistical collections and are a central element in labour market analysis, educational planning, immigration policy development and a range of other government activities. This standard describes how the ABS collects occupation statistics and provides a basis for the standardised collection, analysis and dissemination of occupation data. The use of this statistical standard will enable improved comparability of occupation statistics produced by Australia and New Zealand.

All queries in relation to the New Zealand Statistical Standard for Occupation should be addressed to Statistics New Zealand [classifications@stats.govt.nz](mailto:classifications@stats.govt.nz)

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## Introduction

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### INTRODUCTION

1. Data on occupations are collected in a wide variety of social and labour statistical collections and are a central element in labour market analysis, educational planning, immigration policy development and a range of other government activities.

2. The Australian and New Zealand Standard Classification of Occupations, First Edition Revision 1 (ANZSCO) is used in all Australian Bureau of Statistics (ABS) and Statistics New Zealand censuses and surveys where occupation data are collected.

3. ANZSCO, first edition was introduced in 2006. ANZSCO replaced the Australian Standard Classification of Occupations (ASCO) Second Edition and the New Zealand Standard Classification of Occupations (NZSCO99).

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## Underlying Concepts

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### UNDERLYING CONCEPTS

#### NAME OF THE VARIABLE

4. The standard name for this variable is 'Occupation'.

#### DEFINITION OF THE VARIABLE

##### Nominal definition

5. An occupation is a set of jobs that require the performance of similar or identical sets of tasks. A job in any given workplace is a set of tasks designed to be performed by one individual in return for a wage or salary.

6. 'Occupation' is therefore an attribute of the statistical unit 'job'. In household-based statistical collections it is collected, however, in relation to the person by reference to the main job held by that person. The main job is the job in which the person works the most hours.

##### Operational definition

7. 'Occupation' is a set of jobs whose main tasks are characterised by a high degree of similarity. That is, sets of jobs with similar sets of tasks are grouped together to form an occupation.

8. The degree of similarity between two occupations is measured in terms of the skill level and skill specialisation associated with the sets of tasks involved in each occupation.

9. The skill level of an occupation is a function of the range and complexity of the set of tasks performed. The greater the range and complexity of the tasks performed the greater the skill level of the occupation.

10. The skill level of an occupation is measured operationally by the amount of formal education, previous experience in a related occupation and the amount of on-the-job training before an individual can perform the set of tasks involved satisfactorily.

11. The skill specialisation of an occupation is a function of the field of knowledge required,

tools and equipment used, materials worked on, and goods or services produced or provided in relation to the tasks performed. Skill specialisation includes reference to non-production based operations. For example tools and equipment can also include all forms of plant, machinery, computer-based equipment or hand tools used in the performance of tasks, as well as intellectual tools such as personal interaction, and art or design techniques. Materials worked on refers to materials of both tangible and abstract nature which are extracted, processed, transformed, refined or fabricated as an essential part of the tasks performed. Examples of materials worked on include wood, metal, livestock, accounting data, text, people and organisations. Goods or services produced or provided refers to the end product of the performance of the tasks of an occupation including physical goods, personal or other services, or abstract goods such as a software application or statistical information.

12. For a full discussion of the operationalisation of the concept of occupation refer to ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 (cat. no. 1220.0).

### **Scope of the variable**

13. ANZSCO covers all jobs in the Australian and New Zealand labour forces. The variable Occupation therefore applies to all jobs in Australia. In household based surveys this means all persons who are identified by the Labour Force Status variable as 'Employed'. In employer based surveys, Occupation is used to collect information about employee jobs.

14. The occupations of persons classified as 'Not in the Labour Force' (as defined in the standard for Labour Force Status) are generally outside the scope of ANZSCO, e.g. persons who were keeping house (unpaid), retired, voluntarily inactive, permanently unable to work, persons in institutions (hospitals, gaols, sanatoriums, etc.), and persons whose only activity during the reference period was jury service or unpaid voluntary work for a charitable organisation.

## **DISCUSSION OF CONCEPTUAL ISSUES**

15. The key conceptual issues are discussed above in Definition of the Variable.

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## **Classification and Coding**

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### **CLASSIFICATION AND CODING**

#### **THE CLASSIFICATION CRITERIA**

16. Occupations are classified into progressively larger groups on the basis of two criteria: skill level and skill specialisation. These criteria are defined in the Definition of Variable in Underlying Concepts.

17. The conceptual model adopted for ANZSCO uses a combination of skill level and skill specialisation as criteria to design major groups which are meaningful and useful for most

purposes. ANZSCO assigns each occupation to one of five broad skill levels. ANZSCO has eight major groups which are formed by grouping together sub-major groups using aspects of both skill level and skill specialisation. In designing the major groups, intuitive appeal and usefulness in both statistical and administrative applications were also important considerations.

## THE STANDARD CLASSIFICATION AND CODE STRUCTURE

18. ANZSCO is a hierarchically structured classification comprising five levels:

Major Group;  
Sub-Major Group;  
Minor Group;  
Unit Group; and  
Occupation

19. The categories at the most detailed level of the classification are termed 'occupations'. These are grouped together to form 'unit groups', which in turn are grouped into 'minor groups'. Minor groups are aggregated to form 'sub-major groups' which in turn are aggregated at the highest level to form 'major groups' for example:

Level	Code	Title
Major Group	2	Professionals
Sub-Major Group	24	Education Professionals
Minor Group	241	School Teachers
Unit Group	2415	Special Education Teachers
Occupation	241512	Teacher of the Hearing Impaired

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20. The categories at the Major Group level of ANZSCO are:

Managers  
Professionals  
Technicians and Trades Workers  
Community and Personal Service Workers  
Clerical and Administrative Workers  
Sales Workers  
Machinery Operators and Drivers  
Labourers

21. ANZSCO consists of 1,014 occupations covering all jobs in the Australian and New Zealand labour force; 358 unit groups each containing a number of occupations; 97 minor groups each containing a number of unit groups; 43 sub-major groups each containing a number of minor groups; and 8 major groups each containing a number of sub-major groups. For further detail on the major groups, sub-major groups, minor groups, unit groups and occupations, refer to ANZSCO- Australian and New Zealand Standard Classification of Occupations- First Edition, Revision 1 (cat. no. 1220.0).

22. Each occupation is characterised by a unique 6-digit code, which is structured so that the first digit indicates the major group; the first two digits together indicate the sub-major group; the first three digits together indicate the minor group; the first four digits together

indicate the unit group; and all six digits indicate the occupation.

23. The code structure at major group level of ANZSCO is:

- 1 Managers
- 2 Professionals
- 3 Technicians and Trades Workers
- 4 Community and Personal Service Workers
- 5 Clerical and Administrative Workers
- 6 Sales Workers
- 7 Machinery Operators and Drivers
- 8 Labourers

24. The following is a more detailed example of the code structure of ANZSCO. It outlines the occupations that make up the Unit Group 1342 (Health and Welfare Services Managers) within Minor Group 134 (Education, Health and Welfare Services Managers) which is within Sub-Major Group 13 (Specialist Managers) and Major Group 1 (Managers).

- 1 MANAGERS
    - 13 Specialist Managers
      - 134 Education, Health and Welfare Services Managers
        - 1342 Health and Welfare Services Managers
          - 134211 Medical Administrator (Aus) / Medical Superintendent (NZ)
          - 134212 Nursing Clinical Director
          - 134213 Primary Health Organisation Manager
          - 134214 Welfare Centre Manager
          - 134299 Health and Welfare Services Managers nec\*
- \* nec = not elsewhere classified

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## **Residual categories and codes**

25. For each unit group of the classification structure, a six-digit code, consisting of the four digits of the unit group followed by the digits '99', is reserved as a residual 'not elsewhere classified' (nec) category. All occupations which are not separately identified in the classification structure are included in the 'nec' category of the unit group to which they relate. Residual categories are only identified in the classification structure if they are needed. ANZSCO currently identifies 79 'nec' categories.

26. For each minor group, codes are reserved for residual categories at the unit group level. These codes consist of the minor group code followed by '9'. These categories are termed 'Other' and consist of separately identified occupations which do not fit into any of the unit groups contained within the minor group, on the basis of the classification criteria. The classification contains 21 'other' categories at the unit group level.

27. For each sub-major group, codes are also reserved for residual categories at the minor group level. These codes consist of the sub-major group code followed by '9'. These categories are termed 'Miscellaneous' and consist of separately identified unit groups which do not fit into any of the minor groups contained within the sub-major group, on the basis of the classification criteria. The classification contains eight 'miscellaneous' categories at the minor group level.

28. For each major group, codes are reserved for residual categories at the sub-major group level. These codes consist of the major group code followed by '9'. These categories are termed 'Other' and consist of separately identified minor groups which do not fit into any of the sub-major groups contained within the major group, on the basis of the classification criteria. The classification contains three 'other' categories at the sub-major group level.

### **Supplementary codes**

29. Supplementary codes are used to process inadequately described responses in statistical collections. These codes are of two types:

- six digit codes ending in two, three, four or five zeros; and
- six digit codes commencing with one zero.

30. Codes ending in zero are described as 'not further defined' (n.f.d.) codes and are used to code responses which cannot be coded to the occupation level of the classification, but which can be coded to a higher level of the classification structure.

31. For example, responses which cannot be identified as relating directly to a particular occupation category, but which are known to be within the range of occupations within a particular unit group are coded to that unit group. Such responses are allocated an n.f.d. code consisting of the four-digit code of the unit group followed by '00'. For instance, the response 'Surgeon' does not contain sufficient information to be coded directly to any particular occupation category, i.e. it does not explain the type of surgery, but it can be coded to Unit Group 2535 Surgeons, which encompasses all surgeons. It is thus allocated the code 253500 Surgeons, n.f.d.

32. Codes commencing with zero are used to process responses which do not provide sufficient information to be coded to any level of the structure. They are also used to process responses which are not covered by the current definition of the labour force such as 'housewife', pensioner' and 'student' (see Standards for Labour Force Statistics cat. no. 1288.0). A standard set of such codes is used in the ANZSCO Coding Index.

33. Other codes commencing with zero may be defined by users to facilitate the processing and storage of data, when data sets coded to ANZSCO contain records for entities outside the scope of ANZSCO. For example, occupational activities which are illegal in all States and Territories of Australia are excluded from ANZSCO.

## **APPLICATION OF THE CLASSIFICATION TO OTHER VARIABLES**

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34. The principal statistical purpose of ANZSCO is to produce data on the current occupation of persons. However, it can be applied to other variables such as 'occupation in first job', 'occupation before having time off', 'occupation of second job', 'occupation of last job held', 'occupation after previous break', etc.

35. The classification is also used in a range of non-statistical applications, including matching job vacancies with job-seekers, human resource management and occupational rehabilitation.

## **CODING PROCEDURES**

36. Responses to questions on occupation are coded using computer assisted coding

(CAC) methodology. For more information on coding using CAC see Australian and New Zealand Standard Classification of Occupations (ANZSCO) Coder, 2010.

37. Coding indexes have been developed to facilitate the coding of responses to the questions specified in Collection Methods - Standard Question Module, to the 6-digit level of the classification and are updated by the ABS on a regular basis. A master index is maintained by Standards and Classifications, ABS to ensure consistency across all applications of the classification.

38. The ANZSCO Coder is available from National Information and Referral Service - 1300 135 070 or [client.services@abs.gov.au](mailto:client.services@abs.gov.au)

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## Collection Methods

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### COLLECTION METHODS

#### STANDARD QUESTION MODULE

39. The recommended question module is a set of five open-ended questions. The first two questions are occupation specific, question three asks about the employer, question four and five describing the industry. The use of employer and industry information is used to assist with coding occupation:

#### **Q1. In the main job held last week, what was the person's occupation?**

Give full title.

For example, Childcare Aide, Maths Teacher, Pastrycook, Tanning Machine Operator, Apprentice Toolmaker.

For public servants, state official designation and occupation. For armed services personnel, state rank and occupation.

#### **Q2. What are the main tasks that the person himself/herself usually performs in that occupation?**

Give full details.

For example, looking after children at day centre, teaching secondary school students, making cakes and pastries, operating leather tanning machine, learning to make and repair tools and dies.

For managers, state main activities managed.

#### **Q3. For the main job held last week, what was the employer's business**

**name?**

For self-employed persons, print name of business.

For teachers, print name of school.

**Q4. Which best describes the industry or business of the employer at the location where the person works?**

Mark one box only

Manufacturing

Wholesaling

Retailing

Accommodation

Cafes, restaurants and take-aways

Road freight transport

House construction

Health service

Community care service

Other – please specify

Examples of 'Other – please specify' are: REPAIRS AND MAINTENANCE, EDUCATION, AGRICULTURE, FINANCE, TELECOMMUNICATIONS SERVICE

Remember to mark box like this: -

**Q5. What are the main goods produced or main services provided by the employer's business?**

Describe as fully as possible, using two words or more.

For example: Wheat and Sheep, Bus Charter, Health Insurance, Primary School Education, Civil Engineering, Consultancy Service, House Building, Steel Pipes

40. Open-ended questions give the most detailed information and enable coding to the most detailed level of the classification.

41. The Industry and Employer questions are added as they provide additional information which can assist coding. Since industry information is almost always collected when data on occupation are required, the use of these questions for occupation coding does not represent any increase in respondent burden.

42. The questions above can be used with minor adaptations for Personal Interview, Any Responsible Adult or Self-Enumerated collection methodologies.

43. A questionnaire module consisting of Questions 1 and 2 above may be used where there is insufficient space or time to ask the complete set of four questions. However, the accuracy of coding may be affected.

44. It is often argued that the inclusion of the second (task) question is redundant. The use of an occupation title question only, however, sometimes elicits responses which do not provide a clear occupation title and specification of tasks performed. As a result accurate coding at unit group or occupation level may not be possible.



45. The ABS Monthly Population Survey (MPS) and most ABS Special Supplementary Surveys (SSSs) ask two questions on occupation title and tasks, slightly modified from questions 1 and 2 above:

**Q1. What (was/is) ..... occupation in (that/..... main) (job/business)?**

**Q2. What (were/are) ..... main tasks and duties?**

46 (a). The MPS Industry questions are:

**Q3. What kind of business or service is carried out by ..... (employer at the place where ..... works/business)?**

**Q4. What is the name of .... (employer/business)?**

47. This approach is endorsed only for use in surveys conducted by the ABS because a high level of training is required to ensure that interviewers understand when and how to probe for additional information.

48. The following questionnaire module is recommended for use in employer based collections:

**Q1. Occupation title**

Give **full title** of each employee's occupation, stating trade, class or grade where applicable (e.g. primary school teacher, accounts clerk, 2nd year apprentice chef).

**Q2. Main tasks or duties of employee**

Describe as fully as possible the main tasks or duties usually performed by this employee (e.g. preparing lessons and teaching, accounts payable, food preparation).

49. Usually it is unnecessary to collect industry information in employer based collections where it is available from the business survey frame.

## **STANDARD INPUT CATEGORIES**

50. The Standard Input Categories are the same as the classification categories.

## **SUPPORTING VARIABLES**

51. There are no direct supporting variables. That is, there are no other essential variables apart from Title and Main Tasks in determining 'Occupation'. However, information about Industry and Employer's Name will be required in some situations for achieving more accurate occupation coding at a detailed level.

## Output

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### OUTPUT

#### STANDARD OUTPUT CATEGORIES

52. The detailed output categories for ANZSCO are the same as the input categories. The 6-digit input categories are aggregated to form major, sub-major group, minor and unit group totals.

53. Occupation data can be output at either the major group, sub-major, minor group, unit group or occupation level. The minimum output categories are the eight major groups:

- 1 Managers
- 2 Professionals
- 3 Technicians and Trades Workers
- 4 Community and Personal Service Workers
- 5 Clerical and Administrative Workers
- 6 Sales Workers
- 7 Machinery Operators and Drivers
- 8 Labourers

## Measurement Issues and Related Classifications

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### MEASUREMENT ISSUES AND RELATED CLASSIFICATIONS

#### MEASUREMENT ISSUES

54. There are no measurement issues associated with this classification.

#### RELATED CLASSIFICATIONS

55. In Australia, a detailed link file was produced following completion of data processing of the 2006 Census of Population and Housing which shows the numerical/proportional relationship between the categories of ASCO Second Edition and ANZSCO. A number of other ABS collections, including the Labour Force Survey, were dual-coded to both ASCO Second Edition and ANZSCO to assist in maintaining time series between the two classifications.

56. In New Zealand, the 2006 Census of Population and Dwellings was dual-coded to both the New Zealand Standard Classification of Occupation (NZSCO99) and ANZSCO. A number of other Statistics New Zealand collections, including the Household Labour Force Survey, were dual-coded to both NZSCO99 and ANZSCO to assist in maintaining time

series between the two classifications.

57. The detailed relationship between ANZSCO, ASCO Second Edition and NZSCO99 is explored in the correspondence tables between ANZSCO and ASCO Second Edition, and ANZSCO and NZSCO99

58. The international reference classification for occupation is the International Standard Classification of Occupations (ISCO), which was developed by the International Labour Organisation (ILO). ISCO uses the same classification criteria as ANZSCO for grouping occupations: skill level and skill specialisation. The main aims of ISCO are to provide a basis for international comparisons of occupation statistics between member countries and to provide a conceptual model for the development of national occupation statistics. Correspondence tables between ANZSCO and ISCO are available which detail the relationship between the two classifications.

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## References

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### REFERENCES

#### ANZSCO Products

ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1, cat. no. 1220.0.

Australian and New Zealand Standard Classification of Occupations (ANZSCO) Coder, 2010, cat. no. 1220.0.30.001.

Information Paper -- Census of Population and Housing: Link Between Australian Standard Classification of Occupations (ASCO) Second Edition and Australian and New Zealand Standard Classification of Occupations (ANZSCO), 2006, cat. no. 1232.0.

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## Glossary

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### GLOSSARY

#### ANZSCO

Australian and New Zealand Standard Classification of Occupations.

#### ASCO

Australian Standard Classification of Occupations.

#### NZSCO

New Zealand Standard Classification of Occupations.

**Field of knowledge required**

This indicates the subject matter which is essential to the tasks performed.

**Formal education**

Consists of three types: primary, secondary and tertiary education. Primary and secondary education are measured in years of schooling e.g. in most Australian states, year 12 represents 6 years of primary education plus 6 years of secondary education. Tertiary education is divided into categories consistent with those recognised by the Australian Qualifications Framework (AQF). When practical training is incorporated as a necessary component of formal education it is not separately identified.

**Goods or services provided**

The end product of the performance of the tasks of an occupation including physical goods, personal or other services, or abstract goods such as a software application or statistical information.

**Hand tools**

Equipment which is small enough to be moved by one person.

**Job**

Is a set of tasks designed to be performed by one individual in return for a wage or salary.

**Main job**

The job in which the person works the most hours.

**Materials worked on**

Materials of both a concrete and abstract nature which are extracted, processed, transformed, refined or fabricated as an essential part of the tasks performed. Examples of materials worked on include wood, metal, livestock, accounting data, text, people and organisations.

**Occupation**

Nominally, an occupation is a set of jobs with similar sets of tasks. In practice, an occupation is a collection of jobs sufficiently similar in their main tasks (in terms of skill level and specialisation) to be grouped together for classification purposes.

**Previous experience**

For a given occupation, the number of years of experience required before an individual can satisfactorily perform the tasks of the occupation in question.

**Skill**

For the purposes of ANZSCO, skill refers to the ability to perform the tasks of an occupation.

**Skill level**

A function of the range and complexity of the set of tasks involved. The greater the range and complexity of the set of tasks, the greater the skill level of the occupation.

**Skill specialisation**

The criterion used to group occupations in ANZSCO according to type, rather than level, of skill. The skill specialisation of an occupation is a function of the field of knowledge required, tools or equipment used, materials worked on, and goods or services provided in relation to the tasks performed.

## **Tools or equipment used**

All forms of plant, machinery, computer-based equipment or hand tools used in the performance of the tasks, as well as intellectual tools such as personal interaction, and art or design techniques.

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